



PRENTICE COMPUTER CENTRE

UNIVERSITY OF QUEENSLAND
ST. LUCIA
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NEWSLETTER

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1.0 NEW FILE MIGRATION SYSTEM

Over the past few months the Centre has been developing a new File Migration System (FMS) to replace the existing system which has been running now since 1974. The FMS provides facilities for users to store files from their on-line area in an archive and retrieve them at a later date. The system is necessary because there is generally never sufficient available space on on-line public disk areas to allow all users to keep all their files at any one time.

The existing system suffers from several deficiencies which the new system was designed to overcome. The new FMS is much cheaper to use and response is virtually instantaneous to all commands except for retrievals from archive which should not take more than two hours.

The new FMS is now available for testing on both the K110 and K10 computers. Users are invited to try the system and report any problems. During the period of testing the existing FMS will continue to run as usual and users are advised to continue to use the existing FMS for archival of files which they do not want to lose because we cannot guarantee that files archived via the new FMS will be preserved during this period. However, the risk of losing files is hopefully not great and we do therefore, hope that users will help us test the new FMS so that we may uncover any problems in the shortest possible time.

The new FMS has been tested already fairly intensively within the Centre and we aim to replace the existing system over the weekend of the 21st and 22nd April depending on the results of public testing. At the time of changeover we propose to incorporate all files in the existing archive into the new system following some preliminary clearing out of files. We will thus:

- (a) Skim from the existing archive to magnetic tape all files that have not been accessed for at least 12 months,
- (b) create off-line directories from the remaining archive files,
- (c) delete the old directories.

Subsequently, if it turns out that any users need any of the files skimmed to tape we will restore them upon request.

We will confirm, via NOTICE.TXT, the changeover date.

The new FMS provides substantially the same facilities as the old; users should have few difficulties adapting to it. Some existing commands have been deleted and some new ones added. A comprehensive description of all commands and switches is available in the file DOC:FMSCOM.DOC. It is about eight pages long. In this article we will describe only the major features and differences.

Probably the most important difference is that the new FMS is much cheaper to use. In the old system it was not possible to exit an FMS command via ^C; in the new system ^C will cause the command to terminate quickly and clearly. Two commands OLIST and OKILL have been removed and one command ORENAME has been added.

The new FMS command list is:

ARCHIVE	a file(s) to the archive
RERIEVE	a file(s) from the archive
ODELETE	a file(s) from the archive
ORENAME	a file in the archive
ODIRECTORY	to list the off-line directory

Any unique abbreviations may be substituted as at present.

During the period of testing, commands to the new FMS can not be entered directly to the MONITOR as in the existing FMS. Instead the user must run the program FMSCOM, and then give the command, e.g.

```
.R FMSCOM
*ARCHIVE filename
```

After the changeover date, the command will be simply
.ARCHIVE filename

In the new FMS, files which are archived disappear from the user area immediately; therefore the old /RENAME switch is no longer required. In the new FMS the /PRESERVE switch causes the file(s) concerned to be copied immediately so the response to the command depends only on the time taken to copy the files. RETRIEVE commands are queried as before but the response to the command is immediate and files will be retrieved to the user's area within two hours. ORENAME allows renaming of files in the off-line area to be done in the same manner as for on-line files.

For comparison, here are two command sequences for the old and new FMS. They are to do the same thing; namely, move ABC.FOR off-line freeing the on-line space immediately, retrieving XYZ.CBL from the off-line area but leaving it there as well, and getting a directory of all off-line files.

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<u>Old FMS</u>	<u>New FMS</u>
	.R FMSCOM (test period only)
.ARC ABC.FOR/R	*ARC ABC.FOR
.RET XYZ.CBL/P	*RET XYZ.CBL/P
.ODIR	*ODIR
	*^C

Please try out the new FMS. If you have any comments, suggestions, questions or problems please contact either John Barker on extension 3016 or me on extension 3022.

Mark Johnson

2.0 FORTRAN DOUBLE PRECISION ON THE KL10

A detailed explanation of the differences between the fortran library version 5 and it's successor version 5A was printed in Newsletter N-231 on July 17th 1978. It was explained then that /KAL0 switch was necessary when compiling programs on the KL to be run with version 5 of FORLIB, then on STD:, and not for use with version 5A, then on NEW:. Our intention to make version 5A standard over the Christmas break was also mentioned. (We reminded users of this on 4th December.)

It is now necessary to discard any .REL files produced on the KA system or compiled with the /KAL0 switch if the program uses double precision. Programs which have been LOADED and SAVED (ie .EXE files) will still be correct, but the speed and precision improvement (see N-231) would make recompilation desirable.

C. C. de Voil
extension 3023

3.0 SORT V4

SORT V4 has been implemented on NEW: A documentation file DOC:SORT.DOC is available with details of this new release and NEW:SORT.HLP is an abbreviated summary of the usage details.

Briefly, this version includes a number of maintenance patches and an additional feature to allow the definition of alternate collating sequences. Additional facilities also exist in the use of Sort within Fortran programs.

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For further details, see the .DOC file. Since the release of this version, additional patches, particularly relating to the comparison of EBCDIC keys in the middle of a word. These patches have not been implemented. If this or any other problem affects any user, please contact the author.

Chris de Voil
extension 3023

4.0 KAL0 BATCH STATION 2

Cards to be read onto the KAL0 can no longer be read on through Batch Station 2. Cards delivered to the Hawken Receipt and Dispatch Area will be read on through the main card readers, so output resulting from SPRINT and BATCH will default to the main line printer. Users who explicitly want output to be printed on the lower case printer will need to print the file explicitly, e.g.

```
$TOPS10
.PRI LPTS2:=FILE.EXT
```

or use the switch /LOC:2 on the \$JOB card.

Bryan Claire
extension 3938

5.0 VG SYSTEM

1. An error in the index program VGIDX has been corrected. The error occurred after particular sequences of editing (VGEDIT). The bug in no way affected the integrity of the master file.
2. VGEDIT and VGUPD have both been revised and now runs less expensively for medium to large files (1000 + records). A small saving will also be noticed by users with smaller files.
3. VGBIB and VGCTR
 - (i) VGBIB has two functions. Its first function is to produce an auxillary index using any field(s) nominated. It is possible to include more than one field in the index produced. This index is alpha sorted. If for example, a field contained all the "subjects" a "student" was enrolled in, then an index record would be

generated for every "subject" for that "student" and the same for every "student" on the file. In this example each "subject" would have to be separated by a space or a comma etc. Warning: VGBIB can produce some very large indices and thus may be expensive for the purpose.

(ii) The other option of VGBIB is to produce a file for frequency counting. A field or fields are nominated and a file is produced that is processed by VGCTR. This gives the frequency of occurrences of each element in the nominated field(s). For example it would be possible to count the number of "students" doing each "subject" in a file so constructed.

For further information contact the Program Librarian on extension 3943.

6.0 TIMES OF OPERATION

From Monday April 2nd the times of operation for the Centre will be as follows:-

For timesharing users,

Monday to Thursday - 8.15 am to 11.00 pm

Friday - 9.00 am to 11.00 pm.

For batch users the Hawken Batch Station will operate from 8.00 am to 11.00 pm and the Commerce Batch Station will operate from 9.00 am to 5.00 pm daily. These times will apply for users connected to either the KA10 or KL10 computer.

J.W. Barker
extension 3016

7.0 ADDITIONS TO PROGRAM LIBRARY

Fifty-one programs written by or for Professor W. Stephenson, and intended primarily for use by biologists, have been placed in the Computer Centre Library. Each program is available for copying by .COPY=STA:Filename.Extn. The programs supplement those in STATPACK and include these groups: Preliminary operations on data, standard statistics, transformations and standardisations, diversities, time series

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analyses, 'flux', programs related to CLUSTR and to CONVRT, plotting as for publication, and processing examination results.

For documentation .PRINT DOC:WSPROG.DOC or .TYPE
DOC:WSPROG.DOC

Eileen Lander
extension 3941

8.0 DOCUMENT PREPARATION SERVICE

The Centre is trying to promote the use of text processing; that is the preparation of documents with the aid of the computer. To this end we have offered two courses on using Runoff on the PDP10 system and a third course is scheduled soon. We have recently received an enquiry into whether we would provide a document preparation service itself. That is a service for initial preparation of a document or the editing and correcting of a document.

We believe the use of Runoff to be beneficial for manuals, lecture notes, reports etc. which require frequent revision. A document preparation service may help many people who do not have the time or expertise to prepare their own information this way.

In order to provide such a service the Centre would need to know the likely demands and possibility of usage. Would interested users please contact Sarah Barry (extension 3941). She will be happy to discuss the possibility of this service or help interested users.

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